

# ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

|   |                |   |  |   |                      |
|---|----------------|---|--|---|----------------------|
| 1. DATE OF ORDER<br>02/08/2013  |                | 2. CONTRACT NO. (If any)<br>GS23F0025K      |  | 6. SHIP TO:   |                      |
| 3. ORDER NO.<br>DOC44PAPT1309010  |                | 4. REQUISITION/REFERENCE NO.<br>150P1301034 |  | a. NAME OF CONSIGNEE<br>Commissioner for Patents  |                      |
| 5. ISSUING OFFICE (Address correspondence to)<br>Office of Procurement, US Patent and Trademark Office, PO Box 1450-Mail Stop 6,<br>600 Dulany St., MDE, 7th Floor, ALEXANDRIA, VA 22313-1450   |                |   |  | b. STREET ADDRESS<br>Commissioner for Patents, US Patent and Trademark Office, 600 Dulany St.   |                      |
| 7. TO:  |                | c. CITY<br>Alexandria                       |  | d. STATE<br>VA  | e. ZIP CODE<br>22314 |
| a. NAME OF CONTRACTOR<br>BOOZ ALLEN HAMILTON INC.   |                |   |  | f. SHIP VIA   |                      |
| b. COMPANY NAME<br>BOOZ ALLEN HAMILTON INC.<br>DUNS: 006928857  |                |   |  | 8. TYPE OF ORDER  |                      |
| c. STREET ADDRESS<br>8283 GREENSBORO DR   |                |   |  | <input type="checkbox"/> a. PURCHASE<br><input checked="" type="checkbox"/> b. DELIVERY - Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract. |                      |
| d. CITY<br>MCLEAN   | e. STATE<br>VA | f. ZIP CODE<br>22102-4904                   |  |   |                      |
| 9. ACCOUNTING AND APPROPRIATION DATA<br>2013-A-00-150997-PNCSPA-NONCOMP-2510-P032-C25263-150997-2013  |                |   |  | 10. REQUISITIONING OFFICE<br>Commissioner for Patents, Commissioner for Patents, US Patent and Trademark Office, 600 Dulany St. - suite 7A68, Alexandria, VA 22314  |                      |
| 11. BUSINESS CLASSIFICATION (Check appropriate box(es))<br><input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone<br><input type="checkbox"/> f. SERVICE-DISABLED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOMEN-OWNED SMALL BUSINESS PROGRAM <input type="checkbox"/> h. EDWOSB |                |   |  | 12. F.O.B. POINT<br>Destination   |                      |
| 13. PLACE OF  |                | 14. GOVERNMENT B/L NO.                      |  | 15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)   |                      |
| a. INSPECTION   | b. ACCEPTANCE  |   |  | 16. DISCOUNT TERMS<br>0 Days: 0.00 %<br>0 Days: 0.00 %<br>0 Days: 0.00 %<br>0 Days: 0.00 %  |                      |

## 17. SCHEDULE (See reverse for Rejections)

|  |  |  |  |  |  |
|--|--|--|--|--|--|
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See Lines

|  |   |  |                           |                      |                 |  |              |                             |
|--|---|--|---------------------------|----------------------|-----------------|--|--------------|-----------------------------|
| SEE BILLING INSTRUCTIONS ON REVERSE                                    | 18. SHIPPING POINT  |  | 19. GROSS SHIPPING WEIGHT |                      | 20. INVOICE NO. |  | \$313,059.84 | 17(h) TOT.<br>(Cont. pages) |
|  | 21. MAIL INVOICE TO:  |  |                           |                      |                 |  |              |                             |
|  | a. NAME<br>OFFICE OF FINANCE  |  |                           |                      |                 |  | \$313,059.84 | 17(i) GRAND TOTAL           |
|  | b. STREET ADDRESS(or P.O. Box)<br>Dir. US Patent & Trademark Ofc, PO Box 1450, Mail Stop 17 |  |                           |                      |                 |  |              |                             |
| c. CITY<br>Alexandria  |   |  | d. STATE<br>VA            | e. ZIP CODE<br>22313 |                 |  |              |                             |
| 22. UNITED STATES OF AMERICA BY (Signature)<br><i>Heather M. Bakos</i> |   |  |                           |                      |                 | 23. NAME (Typed)<br>Heather Bakos<br>TITLE: CONTRACTING/ORDERING OFFICER |              |                             |

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OPTIONAL FORM 347 (REV. 02/2012)  
Prescribed by GSA/FAR 48 CFR 53.213(f)

## Section B - Supplies or Services and Prices/Costs

SERVICES IN ACCORDANCE WITH QUOTE 000U-0065-00

TOTAL ORDER VALUE INCLUDING OPTION CLIN: \$594,387.84.

| ITEM NO | SUPPLIES OR SERVICES   | QUANTITY | UNIT | PRICE  |
|---------|--|----------|------|--------|
| 0001    | CLIN 0001 - Project Management   | 1.000000 | LOT  | (b)(4) |
|         | Period of Performance: 02/08/2013 - 08/07/2013<br>Delivery Schedule:<br><u>Delivery Number</u> <u>Delivery Date</u> <u>Quantity</u><br>Description: Firm-Fixed Price<br>Requisition Number: 150P1301034<br>Base/Option (Period or Quantity): Base<br>1. 2013 - A - 150997 - PNCSPA - - C25263 - NONCOMP - 2510 - - P032 - - 150997<br>(b)(4) |          |      |        |
| 0002    | CLIN 0002 - Initial assessment and validation of the existing Patent Production Model  | 1.000000 | LOT  | (b)(4) |
|         | Period of Performance: 02/08/2013 - 08/07/2013<br>Delivery Schedule:<br><u>Delivery Number</u> <u>Delivery Date</u> <u>Quantity</u><br>Description: Firm-Fixed Price<br>Requisition Number: 150P1301034<br>Base/Option (Period or Quantity): Base<br>1. 2013 - A - 150997 - PNCSPA - - C25263 - NONCOMP - 2510 - - P032 - - 150997<br>(b)(4) |          |      |        |
| 0003    | CLIN 0003 - Development of alternative approaches and strategies to develop data and tools for related cost/revenue estimates.   | 1.000000 | LOT  | (b)(4) |
|         | Period of Performance: 02/08/2013 - 08/07/2013<br>Delivery Schedule:<br><u>Delivery Number</u> <u>Delivery Date</u> <u>Quantity</u><br>Description: Firm-Fixed Price<br>Requisition Number: 150P1301034<br>Base/Option (Period or Quantity): Base<br>1. 2013 - A - 150997 - PNCSPA - - C25263 - NONCOMP - 2510 - - P032 - - 150997<br>(b)(4) |          |      |        |
| 0004    | CLIN 0004 - Identification of approaches and strategies to develop data and tools for related costs/revenue estimates  | 1.000000 | LOT  | (b)(4) |
|         | Period of Performance: 02/08/2013 - 08/07/2013<br>Delivery Schedule:<br><u>Delivery Number</u> <u>Delivery Date</u> <u>Quantity</u><br>Description: Firm-Fixed Price<br>Requisition Number: 150P1301034  |          |      |        |

|   |   |                        |                      |                 |
|---|---|------------------------|----------------------|-----------------|
| Base/Option (Period or Quantity): Base  |   |                        |                      |                 |
| 1. 2013 - A - 150997 - PNCSPA - - C25263 - NONCOMP - 2510 - - - P032 - - 150997 |   |                        |                      |                 |
| (b)(4)  |   |                        |                      |                 |
| 0005  | OPTION CLIN 0005 - Development of new forecasting tools which must comply with all USPTO IT Standards. Period of performance shall be negotiated upon exercise of option. | 0.000000               | LOT                  | (b)(4)          |
| Period of Performance: -  |   | Delivery Schedule:     |                      |                 |
|   |   | <u>Delivery Number</u> | <u>Delivery Date</u> | <u>Quantity</u> |
| Description: Firm-Fixed Price   |   |                        |                      |                 |
| Requisition Number: 150P1301034   |   |                        |                      |                 |
| Base/Option (Period or Quantity): Base  |   |                        |                      |                 |
| 1. 2013 - A - 150997 - PNCSPA - - C25263 - NONCOMP - 2510 - - - P032 - - 150997 |   |                        |                      |                 |
| (b)(4)  |   |                        |                      |                 |

POCs -

Program Office - Stacey.Berger@uspto.gov, 571.272.7265

Procurement Office - Heather.Bakos@uspto.gov, 571.272.5361

(b)(4)

**Accounting and Appropriations Data:**

|  |
|--|
| <b>Accounting and Funding Total:</b><br><br>\$313,059.84 |
|--|

## Section I - Contract Clauses

### PTO-03 USPTO/Invoices

These terms and conditions incorporate new Central Contractor Registration (CCR) requirements.

Contractors shall include their DUNS number (or DUNS+4, whichever is appropriate) on all invoices. Failure to do so may result in processing delays.

### PTO-06 Limitation on Contractor Advertisements

The Contractor agrees not to refer to awards in commercial advertising in such a manner as to state or imply that the product or service provided is endorsed or preferred by the Federal Government or is considered by the Government to be superior to other products or services. Advertisements, press releases and publicity of a contract by a supplier shall not be made without the prior express written permission of the Contracting Officer.

**Section J - List of Attachments**

| Identifier | Title                            | Date       | Number of Pages |
|------------|----------------------------------|------------|-----------------|
| 8          | Attachment 1 - Statement of Work | 02/09/2013 | 13              |

## STATEMENT OF WORK

### A. Scope:

1. The United States Patent and Trademark Office (USPTO) requires a Contractor (1) to validate critical forecasting tools that are used to estimate resource demands, patent examiner production and productivity, patent application pendency and fee income; (2) to identify additional innovative tools using operational and economic data, and forecasting models and methods and (3) to develop additional innovative tools using operational and economic data, and forecasting models and methods. Identification and development of these new methods or tools should take advantage of current information technology capabilities and advanced mathematical algorithms tailored to the USPTO's particular market conditions and line of business.

2. The majority of the work shall occur at the Contractor's facility. However, the tasks contained in the SOW require that the Contractor report frequently to USPTO's facility located at 600 Dulany Street, Alexandria, VA. The contractor shall be onsite to obtain data related to USPTO daily operations and its Patent Production Model, to attend meetings, and to speak to USPTO subject matter experts in order to complete the USPTO's requirement. The USPTO will not pay any travel or transportation costs.

### B. Background:

1. The Patent Production Model (PPM) is used extensively by the USPTO, particularly by executives of the Patent business area, to plan and manage patent examination operations. The PPM has been the major vehicle for targeting the key factors that drive hiring, production, and performance of the Patent Examination Corps throughout the planning period. The model and its associated processes require validation and, if necessary, alternative methodologies to reflect the short-term and long term initiatives aimed at improving results.

2. Other organizations within the USPTO also use PPM outputs to project annual fee collections, support cost estimates and performance targets in annual budget plans, and provide the foundation for the annual hiring and recruitment plan. The PPM provides a convenient repository of assumptions and relationships underlying USPTO plans of all sorts.

3. The PPM requires numerous inputs and assumptions regarding the environment external to the patent production system. One example is projections of annual patent application filings. These projections are based upon formal forecasts and consensus judgments about the future. Another input example is the loss of employees, or attrition. Attrition projections among the examining corps for the planning period is based on actuals from previous years, an analysis of the factors contributing to attrition in those years and labor market conditions.

4. The PPM also requires numerous inputs and assumptions regarding the patent production system itself. For instance, examiner productivity is estimated from a linear model using past data and the output of that model is used as an input in the Patent Production Model. There are several basic relationships among the patent model elements that control the estimates. These include the following: The number of overtime production units that can be done by patent examiners. The number of first actions in relation to the number of applications received determines generally how pendency to first action will change. The number of patents obligated (sent to the contractors) for printing and actually printed (issued) in a year is driven by the number of examiner disposals.

5. Using the PPM, the Patent Organization is able to perform the following major tasks:

- a) Project anticipated staffing levels of patent examiners and budget requirements for each year (month/quarter) modeled. This projection takes into account anticipated hires, attritions, and promotions.
- b) Predict how many production units (an average of first actions and disposals) can be expected to result from the work of the patent examiner FTEs that are devoted to examining utility, plant and reissue (UPR) applications.
- c) Estimate the number of first actions, non-final actions, final actions, allowances and abandonments in aggregate and for both serialized and non-serialized filings that can be expected to result from the projected production units for each year of the model. The number of first actions is particularly important for estimating first action pendency, while the number of disposals (allowances plus abandonments) is important for estimating the number of patents to be obligated for printing each year and total pendency.
- d) Estimate pendency each year under two categories: Pendency from filing to First Action and Pendency from filing to Issue.
- e) Potential guiding fee setting and projecting costs and revenue for each year/month/quarter modeled.
- f) Evaluate the impact of internal initiatives, legislative changes, external shocks and other factors affecting internal processes through simulations of outcomes under varying circumstances.

**C. Specific Tasks:**

1. Reports and Meetings

- a) Kick Off Meeting
- b) Monthly progress reports-Starting from 30 days after award through the end of the contract, the Contractor shall provide monthly progress reports detailing all work in progress and completed in the past month. These progress reports should also include difficulties and challenges confronted by the Contractor in carrying out the work.
- c) Monthly meetings/conference calls- Starting from the date of award through termination of the contract, the Contractor shall hold monthly meetings with the relevant USPTO management team to discuss progress.

2. Initial assessment and validation of the existing Patent Production Model and appropriate feeder models using industry standards, best practices and confidence levels. The project schedule for the items below shall be in accordance with the Contractor's technical response as approved by the USPTO.

- a) The Contractor shall provide a briefing to the relevant USPTO management team with an initial assessment and validation of the Corps-level pendency and production model, analyzing the current model and validating the mechanics, formulas, external and internal inputs, and outputs at the corps level;
- b) The Contractor shall provide a briefing to the relevant USPTO management team with an initial assessment and validation of the Technology Center (TC)-level pendency and production model, analyzing the current model and revalidating the mechanics, formulas, external and internal inputs, and outputs at the TC level;
- c) The Contractor shall provide a draft report containing detailed findings and recommendations, including an assessment against industry standards and a summary of best practices, regarding the existing Patent Production Model for agency review and comment.
- d) Within 15 days of receipt of agency comments, the Contractor shall provide a final version of the report described under Task 2a and 2b.

3. Development of alternative approaches and strategies to develop data and tools for related cost/revenue estimates. The project schedule for the items below shall be in accordance with the Contractor's technical response as approved by the USPTO;

- a) The Contractor shall provide a briefing to the relevant USPTO management team, detailing alternative approaches/strategies and methodologies/algorithms for projecting pendency and production at the corps and Technology Center (and potentially lower) levels. Each alternative approach provided must include a written recommend and all alternatives and must be ranking in order which alternative best meets the USPTO's current and future needs. The following different measures of pendency must be included in these alternative(s):
  - i. Pendency to first action;
  - ii. Pendency to final action (treating RCEs as disposals); and
  - iii. Pendency to final action (not treating RCEs as disposals).
- b) Alternative approaches/strategies should include at least:
  - i. high capacity for flexibility in modeling agency actions and approaches;
  - ii. improved methodologies for creating inputs to the models;
  - iii. increased granularity in the outputs of the models; and
  - iv. the use of more robust modeling tools in generating the outputs.
- c) The Contractor shall provide a draft report detailing descriptions of methodologies and algorithms and the alternative approaches and strategies described under Task 3a for USPTO review and comment.
- d) Within 15 days of receipt of USPTO comments, the contractor is to provide a final version of the report described under Task 3b.

4. Identification of approaches and strategies to develop data and tools for related costs/revenue estimates.

The project schedule for the items below shall be in accordance with the Contractor's technical response as approved by the USPTO:

- a) The Contractor shall provide a briefing the relevant USPTO management team, detailing alternative approaches and strategies the vendor has identified for cost and revenue projections
- b) The Contractor shall provide a draft report detailing the approaches and strategies identified under Task 4a for USPTO review and comment.
- c) Within 15 days of receipt of USPTO comments, the Contractor shall provide a final version of the report described under Task 4b.

5. OPTIONAL- Development of new forecasting tools which much comply with all USPTO IT Standards.

The project schedule for the items below shall be in accordance with the Contractor's technical response as approved by the USPTO:

- a) The Contractor shall provide draft versions/prototypes of new forecasting tools tailored to the USPTO's needs and line of business for agency review and comment. The development of these tools should be informed by the analyses performed under Tasks 2-4. The forecasting tools should meet the following requirements:
  - i. (software type)
  - ii. documentation required
  - iii. Responsibility for implementation, updates and support,
- b) Within 30 days of receipt of USPTO comments, the Contractor shall provide final versions of the new forecasting tools, including all documentation. As part of this sub-task, the contractor is to provide a demonstration of the new forecasting tools to briefing the relevant USPTO management team and other select agency officials.

D. Terms and Conditions

1. All deliverables shall be submitted electronically to the Government in a format that is compatible with Microsoft Office 2003 / Microsoft Project 2003 (or new versions) and are subject to USPTO review and acceptance. The Government may approve other types of files such as PDF. The Government shall approve other files types in writing in advance.

Attachments

Attachment 1 - Patent Production and Pendency Overview and Definitions

## **STATEMENT OF WORK - ATTACHMENT 1**

### **Patent Production and Pendency Model Overview**

#### **Purpose and Uses**

The Patent Production and Pendency Model (PPM) is a simulation tool that generates production output measures based on actual historical data and input assumptions based on historical patterns and forecasts. The PPM is used extensively by the USPTO, particularly by executives of the Patent business area, to plan and manage patent examination operations. Within the context of the *USPTO 2010-2015 Strategic Plan*, the Patent Model has been the major vehicle for targeting the key factors that drive hiring, production, and performance of the Patent Examination Corps throughout the planning period.

The CFO/CAO business units also use model outputs to project annual fee collections, support budget requests, and provide the foundation for the annual hiring and recruitment plan. The model provides a convenient repository of assumptions and relationships underlying USPTO plans and performance expectations.

#### **Model Inputs**

The PPM requires inputs and assumptions regarding the environment external to the patent production system, including:

- Projections of annual patent application filings. These projections are based upon formal forecasts and consensus judgments about the future and are explicitly agreed upon by senior Office management.
- Attrition among the examining corps for the planning period based on recent experience and labor market conditions.
- Availability of funding based on preliminary revenue estimates and appropriations.

#### **Key Model Element Relationships**

There are several basic relationships among the patent model elements that control the estimates, including:

- The number of overtime production units that can be done by patent examiners varies in direct proportion to the amount of overtime funding available and optimal inventory levels.
- The number of first actions in relation to the number of applications received determines generally how pendency to first action will change.
- The number of patents obligated (sent to contractors) for printing and actually printed (issued) in a year is driven by the number of examiner disposals.
- The number of first actions will generally tend to be higher relative to disposals during years of extensive examiner hiring. New examiners are generally given new cases to work on, while amended dockets of attriting examiners tend to be given to more senior examiners for handling.

### **Model Outputs**

Using the Patent Model, the Patent Organization is able to perform the following major tasks:

- Project anticipated staffing levels of patent examiners for each of the years modeled. This projection takes into account anticipated hires, attritions, and promotions.
- Predict how many production units (first actions and disposals) can be expected to result from the work of the patent examiner FTEs that are devoted to examining utility, plant and reissue (UPR) applications. The amount of examiner overtime money expected to be available is also converted to production units.
- Estimate the number of first action and disposals that can be expected to result from the projected production units for each year of the model. The number of first actions is particularly important for estimating pendency, while the number of disposals (allowances and abandonments) is important for estimating the number of patents to be obligated for printing each year.
- Calculate how many supervisory patent examiners (SPEs) will be needed to train and supervise the anticipated number of new and existing junior examiners each year. Additional SPEs required are automatically deducted from the number of GS-14 examiners on board at the beginning of the year to eliminate double counting.
- Estimate pendency each year under two categories:
  - Pendency from filing to first action – estimated each year based on the change in new case inventory during the year.
  - Pendency from filing to issue or abandonment (the main pendency goal measurement) – computed in a similar fashion, adding the estimated time from first action to issue or abandonment to last year's first action pendency estimate.

## Patent Production and Pendency Model Definitions

| Model Data Element                    | Definition   | Source of Data   |
|---------------------------------------|--|--|
| Total Hires<br>Traditional<br>IP      | The total number of patent examiner hires during a fiscal year (FY).<br>The total number of traditional patent examiner hires during a FY.<br>The total number of IP experienced hires during a FY.  | Variable – adjusted based on historical production levels of new hires, current production levels, current backlog, training infrastructure, set targets and goals and funding levels.                                     |
| Total OT Worked<br>Track 2<br>Track 1 | The number of overtime hours planned for work on regular U.S. applications by patent examiners during a fiscal year.<br>The number of Track 2 overtime hours worked by patent examiners.<br>The number of Track 1 overtime hours worked by patent examiners. | Variable – adjusted based on historical hours/examiner worked, changes in programs (PELP), policy changes (technology targeted), workload demand, employee culture, salary caps, set targets and goals and funding levels. |
| Examiner Attrition Rate               | The yearly percentage of examiners that leave the examination corps during a fiscal year.  | Forecast – based on current rate, historical data, trends, hiring levels, recruitment/retention incentives, number of retire eligible employees, economic conditions, etc.   |
| Reduction of % RCE of filings         | The percent that RCE filings will be reduced from the previous year.   | Forecast – based on current rate, trends, policy, etc.   |
| Change in % Annual Filing             | The percent of change from previous annual application filings.  | Forecast – based on current rate, trends, economic conditions, input from OPB, etc.  |
| % of PCTs not outsourced              | The percent of PCT applications which are not outsourced.  | Variable – adjusted based on set targets and goals and funding levels.   |

## Patent Production and Pendency Model Definitions

|                                |   |  |
|--------------------------------|---|--|
|                                |   |  |
| Track 1-3 Examiner Staff (EFY) | The total number of examiner staff at the end of the fiscal year for Tracks 1, 2, and 3.  | Calculation – BOY Staffing data from PRIME, plus number of hires, minus number of attrits.   |
| Track 2 Exmr Work Years        | The number of examining staff workyears (full time equivalents - FTEs) available for working on Track 2 applications.                       | Calculation – BOY Staffing data from PRIME plus (number of hires times calculated lapse rate), minus (number of attrits multiplied by lapse rate). |
| Track 1 GS 14s                 | The number of GS 14 examiners for Track 1.  | Calculation – number of Track 1 applications.  |
| Number SPEs                    | The number of supervisory patent examiners(SPEs) required during the fiscal year to train and supervise the patent examiners.               | Calculation - Staffing data from PRIME, number of hires, number of attrits.  |
| Average Examiner Grade         | The average grade level for patent examiners.   | Calculation - Staffing data from PRIME, number of hires, number of attrits.  |
| Attrits                        | The number of patent examiner who left a patent examiner job during the fiscal year.  | Calculation - Staffing data from PRIME, number of hires, attrition rate.   |
| Net Positions                  | The change in the number of examiner positions from the previous year.  | Calculation - Staffing data from PRIME, number of hires, attrition rate.   |
| UPR Backlog Begin of FY        | The number of unexamined Utility Plant and Reissue (UPR) patent applications available for examination at the beginning of the fiscal year. | Calculation – application data from PALM, staffing data from PRIME, number of hires, number of attrits, overtime hours.                            |

## Patent Production and Pendency Model Definitions

|   |   |   |
|---|---|---|
| Filings without RCE reduction   | The total number of UPR patent application filings including Requests for Continued Examination (RCEs) that will be received during the fiscal year.    | Calculation – application data from PALM, change in % annual filings.                         |
|   |   |   |
| Total UPR Filings (no designs)<br>Track 1 Filings<br>Track 2 Filings<br>Track 3 Filings | The total number of UPR patent application filings taking into consideration the reduction in RCE filings that will be received during the fiscal year. | Calculation – application data from PALM, change in % annual filings, reduction in RCEs.      |
| % RCE of Total Filings  | The percent of Requests for Continued Examination (RCEs) applications of the total UPR filings.   | Calculation – application data from PALM, change in % annual filings, reduction in RCEs.      |
| RCE Reduction   | The number of RCE filings expected to be reduced compared to the previous fiscal year.  | Calculation – application data from PALM, change in % annual filings, reduction in RCEs.      |
| Serial Filings (non RCE)  | The number of UPR patent application filings not including RCE filings that will be received during the fiscal year.                                    | Calculation – application data from PALM, change in % annual filings, % RCE of total filings. |
| RCE filings   | The number of Requests for Continued Examination (RCEs) application filings that will be received during the fiscal year.                               | Calculation – application data from PALM, change in % annual filings, % RCE of total filings. |
|   |   |   |

## Patent Production and Pendency Model Definitions

|  |   |  |
|--|---|--|
| Total PUs<br><br>Track 2 PUs             | <p>The total number of production units completed during a fiscal year.</p> <p>The number of Track 2 production units completed during a fiscal year.</p>           | <p>Calculation – Based on firepower: staffing data from PRIME, number of hires, attrition rate, overtime hours. Each examiner FTE by grade is multiplied by projected productivity rate for each grade.</p>  |
| Total Disposals<br><br>Track 2 Disposals | <p>The number of disposals (allowances and abandonments) completed during a fiscal year.</p> <p>The number of Track 2 disposals completed during a fiscal year.</p> | <p>Calculation –</p> <p>Total disposals: based on firepower: staffing data from PRIME, number of hires, attrition rate, overtime hours, and percent first action to disposals. Track 1 filings are added to Track 2 disposals.</p> <p>Track 2 disposals: based on firepower: staffing data from PRIME, number of hires, attrition rate, overtime hours, and percent first action to disposals.</p> |

## Patent Production and Pendency Model Definitions

|                            |  |   |
|----------------------------|--|---|
| Total FA                   | The number of first actions completed during a fiscal year.                    | Calculation -   |
| Total Track 2 FA           | The number of Track 2 first actions completed during a fiscal year.            | Total Track 2 FA: based on firepower (Staffing data from PRIME, number of hires, attrition rate, overtime hours), total FAs worked. |
| Total Serial FA            | The number of first actions not including RCEs completed during a fiscal year. | Total Serial FA: Total FAs plus Track 1 FAs minus RCE filings.  |
| Track 2 Serialized FAs     | The number of first actions not including RCEs completed during a fiscal year. | Track 2 Serialized FAs: Total FAs – RCE filings   |
| Serial FA per examiner     | The number of serialized first actions per patent examiner.                    | Serial FA per examiner: total serialized first actions completed divided by EOY examiner FTE.                                       |
| Percent of FA to Disposals | The percent of first actions completed to disposals completed.                 | Forecast – based on current rate, historical data, trends, policy, etc.   |
|                            |  |   |
| Allowance rate             | The percent of disposals which are allowances.                                 | Forecast – based on current rate, historical data, trends, policy, etc.   |
| Total Allowances           | The total number of allowances in a fiscal year.                               | Calculation – Track 2 disposals multiplied by projected allowance rate.   |
| Track 2 Allowances         | The number of Track 2 allowances in a fiscal year.                             |   |
| Total Patents Printed      | The number of patents to issue as printed patents during a fiscal year.        | Calculation – Total allowances multiplied by 93%.   |
| Track 2 Patents Printed    | The number of Track 2 patents to issue as printed during a fiscal year.        |   |
|                            |  |   |

## Patent Production and Pendency Model Definitions

|   |   |  |
|---|---|--|
| Track 2 FY FA Pendency                      | The Track 2 first action pendency in months from filing to first action on the merits as of the end of the fiscal year. | Calculation – Track 2 Serialized first actions completed in the fourth quarter, multiplied by the average age of each first action, divided by total serialized Track 2 first actions completed in the fourth quarter.             |
| Track 1 & 2 4 <sup>th</sup> Qtr FA Pendency | The Track 1 and Track 2 fourth quarter first action pendency in months from filing to first action on the merits.       | Calculation – Track 1 and 2 Serialized first actions completed in the fourth quarter, multiplied by the average age of each first action, divided by total serialized Track 1 and 2 first actions completed in the fourth quarter. |
| Track 2 Total Pendency (Traditional)        | The Track 2 total pendency in months from filing to issue or abandonment as of the end of the fiscal year.              | Calculation – Average of BOY Track 1 and 2 first action, BOY inventory position, and BOY total pendency, plus 9 months.  |
| Inventory Position (months of inv)          | The number of months of inventory for the fiscal year.  | Calculation – EOY backlog divided by serialized first actions worked in the fiscal year, multiplied by 12.   |
|   |   |  |
| Backlog Firepower (FA vs. Filings)          | The percent firepower of staff on board to work on first actions versus filings.  | Calculation – Total Track 2 first actions divided by total UPR filings (no design).  |

### Patent Production and Pendency Model Definitions

|                                   |   |   |
|-----------------------------------|---|---|
| Track 2 UPR Backlog (EFY)         | The Track 2 Utility, Plant, Reissue patent application backlog at the end of the fiscal year. | Calculation – BOY backlog + serialized filings – pre-first action abandonments – serialized FA's completed in the fiscal year . |
| Ideal backlog (10 months of apps) | The number of applications equivalent to ten months of work at the current staffing level.    | Calculation – Track 2 first actions minus RCE filings, multiplied by 10, and divided by 12.                                     |